



## The MM/1:

### A Revolutionary New Computer Designed With You In Mind

Interactive Media Systems, Inc. has developed a computer system that is practical and elegant. It is a wholly new design that incorporates industry-standard features in demand by you, whether you're a **multimedia** developer, **business** person, **student**, **educator**, or **real-time** professional.

This computer, the MM/1, uses revolutionary hardware and software that provide excellent access to existing technology. The MM/1 is distinguished among other computer systems because it includes:

Features advanced  
multitasking, windowing  
system and free software

- o **True pre-emptive multitasking** -- better than MS-DOS<sup>(tm)</sup>
- o **Built-in windowing system** -- extremely productive
- o **Advanced languages** -- perfect for students and professionals
- o **Built-in stereo sound and mouse port** -- for ease of use and multimedia
- o **NTSC graphics** -- for entertainment, multimedia, and business
- o **Extensive input/output support** -- excellent expansion capacity
- o **Use up to 9 Megabytes of memory** -- no DOS-like memory barriers
- o **Strong UNIX<sup>(tm)</sup> compatibility** -- for students, teachers, and professionals
- o **Networkable at low cost** -- for business and data acquisition
- o **Avoids all pitfalls of MS-DOS<sup>(tm)</sup>** -- no configuration hassles
- o **Affordable** -- excellent value for multimedia, business, and real-time

Where to write for  
details

This brochure is designed to tell you more about the MM/1 and its benefits for you. If you have specific questions,

**[REDACTED]** also has authorized representatives all over the country ready to serve you. Write to us for a complete list.

## POWERFUL HARDWARE

Multimedia hardware,  
including millions of  
colors and crisp  
graphics

The MM/1 uses new technology developed for interactive multimedia. The Philips<sup>(tm)</sup> video and system controller keeps the MM/1 cost low while giving **crisp, colorful graphics** at 15.75 MHz for outstanding quality on a range of monitors. Up to 256 colors from a **palette of 16.7 million colors** can be selected for vivid natural-image graphics.

DMA stereo sound for  
natural user interfaces

The MM/1 includes **stereo sound for both playback and custom sampling**. Using two channels of 8-bit direct-memory-access sound, you can play back and sample sounds to enhance your programs, teach language, enjoy entertainment software, or create powerful interfaces for point-of-information booths. Software is included for free that lets you sample at up to 32KHz in stereo.

Windowing on a modern  
computer architecture  
improves your  
efficiency immediately

The MM/1 features an **efficient 15 MHz 68070 from Signetics** with a **multitasking operating system**, OS-9/68000<sup>(tm)</sup> from Microware Systems Corporation. The CPU, in conjunction with the operating software, provides an effective environment for users and professionals. Just touch a key to move instantly among your applications. Avoid PC clone hassles of awkward memory management, single-tasking operation, or inefficient PC-compatibility overhead. MM/1 windows beat competitive systems for productivity.

PC floppy compatibility  
for data  
transportability

The 1.44 Megabyte floppy disk drive **can read and write PC format disks** with the MM/1's PC drivers and Microware's PCF module. Move data between the MM/1 and PC clones with ease.

High-speed hard drive interface beats most PCs

The **SCSI interface** included at no extra charge lets you connect up to seven devices including **tape backup drives, hard disk drives, digitizers, and CD-ROM drives** (some devices require additional software). The MM/1's hard disk can be **three times faster** than comparable drives on PC clones, with transfers measured at 1.9 Megabytes/second in a real-world test.

Print orders, use touch-screens, log data, dial in remotely -- without expensive add-on boards

The MM/1 is distinguished from PCs in its extensive input/output support. It **includes up to five serial ports** (three are standard) for your **mouse, printer, modem, or terminals**. **Two parallel ports** support a wide variety of common printers. Stereo sound ports can be used for **data acquisition** as well as **multimedia and entertainment**. A Tandy(tm)-compatible **joystick port** is included at no extra charge.

Simple, powerful networks for classroom, lab, or office

The MM/1 is also network-ready using Microware's NFM software. It includes **sophisticated and simple-to-use network software** that is an extra cost on PC clones, and an interface supporting a network of **dozens of users**. The same interface can be used for real-time **distributed data logging** or **robotics** with network cabling and an affordable single-board MM/1 system.

Configure the MM/1 easily for exactly what you need

The MM/1 also offers you: a **real-time clock**; two **mouse-capable serial ports** for flexibility; support for up to **four floppy disk drives**; **slim-line case** with 200 Watt power supply; reset button; front or back keyboard port; **one year parts and labor warranty**. Expand your **memory up to 3 Megabytes** (or 9 Megabytes with optional memory board) with standard SIMM memory.

## SMART SOFTWARE

Powerful, easy to use interface and multiuser capability save you time and money

The MM/1 arrives with six high density disks packed with the best in modern software. Designed to make you productive right away, the MM/1 includes a **simple-to-use windowing interface** that beginners and professionals alike will admire. This windowing system takes advantage of the best features of the Microware OS-9/68000 **multitasking operating system** that also supports multiple users on a single CPU. With one or four users on a single MM/1, you are using an extremely efficient, cost-effective system.

Word-processing and multimedia tools included free

The MM/1 comes with a text editor and formatter -- you can **create documents** with headers, footers, pagination, table of contents and an index. Play back **sound files** and AutoDesk Animator(tm) **animations** with bundled software. Available separately is PAINT, a cost-effective tool for creating colorful pictures or user interfaces. Perfect for the student or professional, PAINT and the MM/1's word processing are **based on industry-tested software**.

Telecom, scripting software, animation and sound tools

If you have a modem, you'll enjoy the **free telecommunications software** included with the MM/1. You also get a state-of-the-art script language called **OddJob** from TechnoTeacher, Inc. of Tallahassee, Florida, leaders in powerful OS-9/68000 software. Users and professionals can make their MM/1 efficient and versatile with simple OddJob scripts. Plus, you get **demonstration programs with sound and animation** and hundreds of **professional utilities** for managing your MM/1's resources. Much of this software is normally an extra cost for PC clone owners.

Real-time and multimedia programmers will enjoy the software tools included

If you teach operating systems or languages, or if you are a software professional, you will admire Microware's **C language** for its compatibility and excellent diagnostics. Or use the modern, **structured BASIC** for excellent modular software design. All Microware languages are re-entrant and ROMable. For serious software development, the MM/1 **C Graphics Library from HyperTech Software** is included at no charge for creating sophisticated applications supporting multimedia.

Point-of-sale and point-of-information centers are easy to create

The MM/1 provides an impressively affordable basis for a cash-drawer point-of-sale system. Use bar code readers for quick check-out and inventory management. If you need to provide information to customers in your store or at your convention site, use the MM/1's sound and graphics to inform and motivate them. With all you need built in, the MM/1 makes the perfect salesperson at the lowest cost.

MM/1 for productivity and office automation

The MM/1 is also a good choice for business. With the **multiuser and networking capabilities**, you can build up a powerful office system for a fraction of the cost and none of the headaches of PC networks. **Data integrity** is assured with built-in record-locking. **Share printers, modems, and software** easily and transparently. The MM/1 is **easy to learn** for your employees, and is **far more efficient to use** than PC clones. Off-the-shelf software includes word processing, relational data bases, spreadsheets, telecommunications, accounting, inventory, payroll, and time management.

Wide range of software available

IMS, Inc. leads the OS-9 industry in bringing new, **affordable software** to market. You can now choose from dozens of packages offered by developers in the IMS Developers Association (IDEA). Music software for the MM/1 **MIDI** interface, **UNIX utilities**, **bar code** printing software, **animation** packages, prototyping tools, and scripting languages are some of the packages ready now. You can order industry-standard tools such as **TeX**, **GNU** tools including **GAWK** and **GCC**, **NFS**. **CD-WORM** support is available.

## COMPATIBILITY

The MM/1 supports common peripherals, and can read and write PC disks.

The MM/1's hardware and software engineers designed a **UNIX-style** system that is low-cost and much **easier to use** than UNIX. The MM/1 makes small multiuser systems **practical, affordable, and simple** to support, clear advantages over PC networks or networked UNIX workstations. The MM/1 is **easy to integrate** into existing PC and UNIX environments: move a PC disk back and forth between a PC and the MM/1; or let your UNIX guru move his tools to the MM/1 with virtually no hassles.

Use off-the-shelf peripherals that **save you money and broaden your choices**. Dot matrix printers, laser printers, bar code readers -- literally hundreds of PC peripherals -- are compatible with the MM/1.

Use your existing mice and keyboard

The MM/1 comes with a **PC compatible floppy disk drive** that reads and writes PC disks. It can use PC clone **XT keyboards** and both Microsoft(tm) and Mouse Systems(tm) mice and trackballs.

Choose from a wide variety of storage devices to make your work faster, safer, and more accessible

The MM/1 uses a wide variety of SCSI devices including **CD-WORM** (requires extra software), **SCSI hard drives**, **SCSI tape backup systems**.

For optimum results, use NEC(tm) MultiSync(tm) monitors or similar monitors from Mitsubishi(tm) and others, or the Magnavox(tm) 1CM135 monitors featuring stereo sound support. You can also use composite or TTL monitors in either monochrome or color with cables supplied from IMS, Inc.

## Notes

\* Hard disk performance varies with the drive used. Quantum drives have achieved 1.9 Megabytes/second. Other brands typically transfer data at rates 1.2 to 1.5 Megabytes/second.

\* The sound hardware is capable of sampling at faster rates. Call for availability. Sound hardware can sample in monaural and at smoothly decreasing rates to let you optimize your quality and storage requirements.

\* The MM/1 supports multi-synch monitors, most RGB-A monitors, composite, and monochrome composite and TTL monitors. To facilitate multimedia production and to avoid expensive VGA to NTSC conversion, the MM/1 is already NTSC-capable.

\* The network port requires a special low-cost hardware and cable to function in an office network. Write for details.

## SPECIFICATIONS

The MM/1 Extended is specified below. For other configurations, installation, service, or support, write or contact your local IMS Representative.

*CPU:* 15 MHz Signetics 68070 with two DMA channels and serial network

*Graphics:* Signetics 66470 VSC with on-board pixel acceleration logic, displays up to 256 colors; NTSC compatible

*Palette:* Brooktree triple 8-bit DAC for 16.7 million colors

*Resolution:* 320x210 (256 colors) for AutoDesk(tm) Animator(tm) compatibility; 320x420 (256 colors) for sharp natural-image graphics; 640x210 (16 colors) for productivity and windowing; other modes available

*RAM:* 1 MB standard, upgradeable to 3 MB or 9 MB (9 MB requires memory card); memory is linearly addressed

*Floppy:* 3.5" 1.44 MB floppy standard; expand to up to four floppy drives with built-in controller; 3 ms access; multiple formats supported, includes PC format read and write capability

*Ports:* 3 serial ports (expandable to five); serial ports support all standard baud rates up to 38 KBaud; hardware handshaking supported; one serial port is configurable for MIDI In and MIDI Out; 2 parallel ports; joystick port; RGB-Analog video port; PC-XT keyboard port

*Network Interface:* High-speed desktop bus network included; 100KBaud transmission; supports up to 127 devices or computers; requires optional hardware and software

*SCSI:* Host adapter included, permits extremely high-speed data transfers with hard drives and tape drives; expand to tape drives, CD-WORM, and other SCSI devices

*Clock:* Realtime clock battery-backed with nonvolatile RAM

*Sound:* PC-style sound through monitor cable or PC speaker; stereo DMA sound for recording and playing back monaural and stereo sound files without interrupting CPU or hard drive

*Software:* OS-9/68000(tm) multitasking, multiuser operating system; windows; PC File Manager; Sequential Block File Manager for tape backup support; Network File Manager; print spooling; electronic mail; telecommunications; text editor; BASIC; C compiler; C Graphics Library; OddJob; complete utility set; demonstrations

Application software immediately available includes word processing, database, spreadsheet, accounting, office management, telecommunications, animation, paint and draw, sound recording and playback, scripting, authoring, ANSI C compiler, FORTRAN, Fortran, Network File System (NFS), entertainment software, UNIX utilities, Postscript(tm) editors. Contact your local IMS Representative for a complete catalog.

Free brochures now available:

University Students and the MM/1: Productivity, Pleasure, Concepts

Real-Time Development with the MM/1: Efficiency, Maintainability, Affordability

Multimedia and the MM/1: Profit Fast in the Hottest Market

The MM/1 and the PC: A Smart Match To Reduce Costs, Increase Profits

## FOR MORE INFORMATION

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